DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012571 Address: 333 Burma Road **Date Inspected:** 23-Feb-2010

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Location: Shanghai, China

CWI Name: CWI Present: Yes Xu Le Feng No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component: Tower Components**

Summary of Items Observed:

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

Tower Trial Assembly

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 027 located on East Tower Lift-1 Bearing stiffener Plate SSD1 – SA18. Welder is identified as 068859. ZPMC Quality Control (QC) Inspector is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2333 - Tc - P4 - F.

Shielded Metal Arc Welding (SMAW):

Repair welding of a weld joint # 42 located on East Tower Lift-1 ESD1 – SA237D/F. Welder is identified as 066674. ZPMC Quality Control (QC) Inspector is identified as Xu Jian Long. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 3G (3F) – Repair.

BAY 10

This QA Inspector observed the following work in progress:

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Shielded Metal Arc Welding (SMAW):

Weld joint #39B located on South Tower Lift-5 C/D corner SSD1 – TL5 – 1B – F. Welder is identified as 040269. ZPMC Quality Control (QC) Inspector is identified as Jiang La Mei. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3212 - Tc - U4b - 1.

Flux Core Arc Welding (FCAW):

Weld joint # 038 located on skirt Plate SD1 – A440E/E. Welder is identified as 066163. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2331 - B - P3 - F.

BAY 11

This QA Inspector observed the following work in progress:

Sub-Merged Arc Welding (SAW):

Weld joint #3-1B located on Strut angle connection Plate ND1 – SA4 – 68 – 135M. Welder is identified as 041716. ZPMC Quality Control (QC) Inspector is identified as Liu Dao Feng. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3221 - Tc - U5 - S - 1.

Weld joint # 1-5B located on Strut Plate ND1 – STSA4 – 10 – 119M. Welder is identified as 040699. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS -B - T - 4221 - B - U3c - S - 1.

Shielded Metal Arc Welding (SMAW):

Weld joint #4B located on West Tower Lift-4 A/B corner WSTL4 – 2L/L. Welder is identified as 053916. ZPMC Quality Control (QC) Inspector is identified as Shao Hai Lang. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3212 - B - U4b. (See attached photo)

Witness of Ultrasonic Testing (UT)

This QA inspector Witnessed 100% UT performed by ZPMC Quality Control personnel. During the process ZPMC UT technician found Three (3) class 'A' non conforming indications as per AWSD1.5 Table 6.4. The member is identified as Tower Component. The component and weld designation identified as follows:

EAST TOWER LIFT-5 A/E CORNER ESD1 - TL5 - 2B/F - 3A

(See the attached photo)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer